201
12.3 HW Key
12.5

p814 3, 4, 6, 7, 22

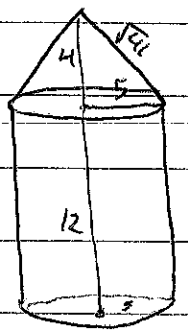
3. One face
$A = \frac{1}{2} 8 \cdot 10$
$40 cm^2$

4. $A = \frac{1}{2} 10 \cdot 15$
$75 in^2$

6. $p = 8 ft$
$B = 4 ft^2$
$LA = \frac{1}{2} 8 \cdot 3 = 12 ft^2$
$SA = 16 ft^2$

7. $p = 50 mm$
$B = \frac{1}{2} 6.9 \cdot 50 = 172.5 mm^2$
$LA = \frac{1}{2} 50 \cdot 20 = 500 mm^2$
$SA = 672.5 mm^2$

22.



$LA = \frac{1}{2} 10\pi \sqrt{41}$
cone
100.6

$LA = 10\pi 12$
cyl.

$B = 25\pi$

+

$556.1 cm^2$

p832 3, 4, 6, 9, 14, 16, 21

3. $V = \frac{1}{3} 25 \cdot 6 = 50 cm^3$

4. $V = \frac{1}{3} 100\pi \cdot 13 = 1361.4 mm^3$

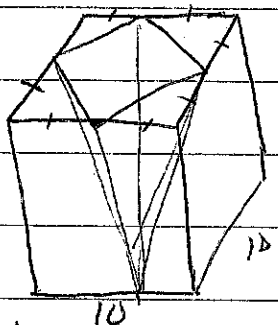
$\tan 32 = \frac{7}{h}$

6. $V = \frac{1}{3} \pi \cdot 2 = 2.09 mm^3$

16. $V = \frac{1}{3} 49\pi 11.2$
$574.8 yd^3$

9. They used ℓ instead of h
$V = \frac{1}{3} 81\pi \cdot 12$
$324\pi \approx 1017.9 ft^3$

21.



$V_{CUBE} = 10^3$
$1000 in^3$

$\sqrt{5^2+5^2} = 5\sqrt{2}$

$B = 5\sqrt{2} \cdot 5\sqrt{2}$

$V = \frac{1}{3} 50 \cdot 10$
$166.7 in^3$

$V_{CUBE} - V_{PYR.}$

$V = 1000 - 166.7$
$833.3 in^3$

14. $V = 7\sqrt{3} ft^3$

$7\sqrt{3} = \frac{\frac{1}{3}(2\sqrt{3})^2\sqrt{3}}{4} \cdot x$

$28\sqrt{3} = \frac{1}{3} 12\sqrt{3} \cdot x$

$4\sqrt{3} \cdot x$

$x = 7 ft$